

**REMARKS**

Claims 3-10 are pending in the application. Applicants respectfully request reconsideration in view of the following Remarks.

Applicants have amended the specification as requested by the Examiner.

Claim 3, 6-7, and 10 stand rejected under 35 U.S.C. §102(c) as being anticipated by Kawasaki et al. (US 6,424,012) ("Kawasaki"). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Moreover, "[t]he identical invention must be shown in as complete detail as is contained in the \* \* \* claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claims 7 and 10 include the following limitation: "doping impurities selectively into said semiconductor layer, using said mask; thoroughly removing the mask used in the doping so that no layer having an impurity density of  $10^{13}$  atoms/cc or greater remain on the semiconductor layer." Kawasaki does not teach or suggest those limitations.

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Kawasaki discloses removal of a channel stopper; however, such removal of a channel protection film is performed after sequentially carrying out doping of impurities, activation of the impurities by thermal annealing, and hydrogenation by heat treatment, in that order. In Kawasaki, because a plurality of heat treatment processes are provided between doping of impurities and removal of a protection of a protection film, the impurities contained in the channel protection film are diffused in the active layer. Accordingly, even if the channel protection film is removed after diffusion of impurities, it is not possible to achieve a state in which no layer having an impurity density of  $10^{13}$  atoms/cc or greater exists. In addition, there is nothing in Kawasaki that discloses, either expressly or inherently that no layer has an impurity density of  $10^{13}$  atoms/cc or greater remaining on the semiconductor layer.

In addition, Kawasaki does not teach or suggest all of the limitations of claims 3 and 6. Claims 3 and 6 include the following limitation: "forming an interlayer insulating film directly on said semiconductor layer, after removal of said mask." Kawasaki teaches that after the resist mask 109 has been removed, a process for adding an n-type impurity

lement into the crystalline semiconductor film is performed with the channel protection film 108 employed as a mask. Kawasaki also teaches that subsequently, a photo-mask is used to form a resist mask 114. See column 8, lines 27-30 and lines 58-60. Thus, once the mask is removed a second mask is employed. Thus, Kawasaki does not teach or suggest the limitation as claimed.

Accordingly, Applicants respectfully request that the rejection as to claims 3, 6-7, and 10 be withdrawn.

Claim 3 stands rejected under 35 U.S.C. §102(a) as being anticipated by Applicants' Admitted Prior Art. The Examiner states that our argument filed 10/23/02 is not persuasive because Figures 1D-1E show an insulating film 59 formed directly on the semiconductor layer 54. While a portion of the insulating film 59 is may touch semiconductor layer 54, the entire length of the insulating layer is not formed directly on the semiconductor layer because the ion stopper is disposed between the two layers. As such, AAPA does not teach or suggest "forming an interlayer insulating film directly on said semiconductor layer." Accordingly, Applicants respectfully request that the Examiner withdraw the rejection as to claim 3.

*argued*

Claims 4-5 and 8-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawasaki in view of Tsai et al. (US 5,814,530) ("Tsai"). For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988).

Claims 4 and 5 include all of the limitations of claim 3 and claims 8 and 9 include all of the limitations of claim 7. Thus, as discussed above, Kawasaki does not teach or suggest all of the limitations of claims 4-5 and 8-9 and Tsai does not remedy the deficiencies. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection as to claims 8 and 9.

In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this

case, the Examiner is cordially requested to telephone the undersigned.

In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicants' attorney hereby authorizes that such fee be charged to Deposit Account No. 06-1130.

Respectfully submitted,

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